# INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

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Mr. CORKER, from the Committee on Foreign Relations, submitted the following

## REPORT

[To accompany Treaty Doc. 110-19]

The Committee on Foreign Relations, to which was referred the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty Doc. 110–19), having considered the same, reports favorably thereon with one understanding and one declaration, as indicated in the resolution of advice and consent, and recommends that the Senate give its advice and consent to ratification thereof.

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## I. Purpose

The International Treaty on Plant Genetic Resources for Food and Agriculture (the "treaty") aims to promote global food security through conservation and the promotion of sustainable agricultural practices. The centerpiece of the treaty is the establishment of a multilateral system by which all parties make available the genetic information that they have accumulated pertaining to agricultural products included in the list attached to the treaty. The treaty further endeavors to employ a fair and equitable sharing of benefits derived from the use and commercialization of plant genetic resources for food and agriculture ("PGRFA") among parties to the treaty.

#### II. BACKGROUND

#### A. THE TREATY

The development of sustainable, higher-yielding crop supplies is an integral part of ensuring global food security. By 2050, the world's population is estimated to reach 9.15 billion. The United Nations Food and Agriculture Organization (FAO) predicts that farmers will have to increase production by at least 60 percent by 2050 to satisfy the demand for food due to the world's growing population, urbanization, and rising incomes. Global agriculture has addressed challenges of growth on a similar scale in recent decades

largely as a result of advances in plant genetics.

The FAO took up these issues in 1983 when it adopted the International Undertaking on Plant Genetic Resources (IU). A voluntary, non-binding instrument, the IU sought to "ensure that plant, genetic resources of economic and/or social interest, particularly for agriculture, will be explored, preserved, evaluated, and made available for plant breeding and scientific purposes." In 1993, the FAO initiated an effort to revise the IU to take into consideration outstanding issues related to access to plant genetic resources for food and agriculture. The FAO's intergovernmental Commission on Genetic Resources for Food and Agriculture was tasked with negotiating a new agreement that would maintain adherence to intellectual property rights, retain the emphasis placed on sharing of genetic information between countries, and move from a bilateral to a multilateral approach with regard to the dispensing of genetic information among nations. The result was the Treaty on Plant Genetic Resources for Food and Agriculture, which was adopted at the thirty-first session of the Conference of the FAO on November 3, 2001, and entered into force on June 29, 2004. There are currently 139 contracting parties.

The treaty represents a shift from a fragmented bilateral approach to plant genetic cooperation to a more systematic multilateral framework that will permit member states to be co-beneficiaries of advances in their respective knowledge and understanding of plant genetic compositions. The treaty recognizes that plant genetic resources are essential for achieving global food security through efficient and reliable agriculture, and establishes a multilateral system by which all parties make available certain PGRFA. It is limited in scope in two significant ways: (1) it applies only to plant genetic resources for food and agriculture ("PGRFA") and does not cover plant genetic resources for chemical, pharmaceutical and/or other non-food industrial applications; and, (2) it applies only to international transfers of PGRFA (e.g. between two Parties to the treaty or a party and a private entity within another party). It is not applicable to transfer of PGRFA of a purely domestic nature.

The United States signed the treaty on November 1, 2002, and it was submitted to the Senate by President George W. Bush on July 7, 2008. The executive branch has indicated that the treaty can be implemented under existing authorities.

#### B. THE U.S. APPROACH TO PGRFA

The United States' food supply is based on intensive agriculture. Intensive agriculture benefits from genetic uniformity in crops, but

it can also increase the potential for crop vulnerability to new pests, diseases and environmental stresses. Following an outbreak of Southern corn blight in 1970 that devastated 15 percent of the nation's corn crop, Congress established the National Plant Germplasm System (NPGS) within the United States Department of Agriculture's (USDA) Agricultural Research Service (ARS). The NPGS is a national network of public (federal and state) agencies (including more than 20 federal gene banks located across the country), private institutions and individuals. It is the primary entity in the U.S. effort to conserve and utilize crop germplasm for crop improvement. With a collection that includes about 85 crops, the NPGS collects plant germplasm from all over the world and is devoted to the free and unrestricted exchange of germplasm with all nations and permits access to U.S. collections by any person with a valid use, such as for research or breeding. Germplasm users in other countries have the same privileges as those in the United States. According to ARS, this policy has grown out of the belief that germplasm, like the oceans and air, is a world heritage to be freely shared for the benefit of all humanity. Through these efforts, NPGS assists in improving the quality and productivity of crops in the United States and in the world. In 1990, Congress authorized establishment of a National Genetic Resources Program (NGRP). NGRP has the responsibility to acquire, characterize, preserve, document, and distribute to scientists, germplasm of all life forms important for food and agricultural production, which in addition to plants includes animals, microbes, and invertebrates.

## III. SUMMARY OF KEY PROVISIONS

A detailed article-by-article discussion of the proposed treaty is attached to the Letter of transmittal from the Secretary of State to the President (the "Letter of Transmittal"), which is reprinted in full in Treaty Document 110–19. A summary of the key provisions of the proposed treaty is set forth below.

### INTRODUCTORY PROVISIONS

Objectives and Definitions (Articles 1-2)

The objectives of the treaty are the conservation and sustainable use of PGRFA and the fair and equitable sharing of the benefits arising out of their use for sustainable agriculture and food security. The treaty defines "Genetic material" as "any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity." Article 1 contains references to the Convention on Biological Diversity, including the statement that the treaty's objectives will be attained by "closely linking this treaty to the Food and Agriculture Organization of the United Nations and to the Convention on Biological Diversity." The United States is not a party to the Convention on Biological Diversity. References to the Convention on Biological Diversity in the treaty do not create any obligations under that Convention and do not affect or enhance the status of that Convention as a matter of United States or international law.

#### GENERAL PROVISIONS

General Obligations (Article 4)

Article 4 provides that each state party must ensure the conformity of its laws, regulations, and procedures with its obligations under the treaty. The executive branch has indicated that the United States currently has all necessary authority to implement the treaty. The U.S. Department of Agriculture (USDA) and Agency for International Development (USAID) will be the agencies primarily responsible for implementation.

Conservation, Collection, Evaluation, and Documentation of PGRFA (Article 5)

Article 5 lists the main tasks for Contracting Parties regarding PGRFA and calls for the promotion of an integrated approach to the exploration, conservation and sustainable use of PGRFA. Each party, subject to its national legislation, must take steps such as the survey and inventory of its PGRFA and the promotion of the collection of threatened or potentially useful PGRFA.

Sustainable Use of PGRFA (Article 6)

Article 6 obligates Parties to develop and maintain appropriate policies and legal measures that promote sustainable use of PGRFA, and it provides a non-exhaustive list of measures that constitute such sustainable use. The executive branch has indicated that the activities described in Articles 5 and 6 "are consistent with current U.S. practice and would be implemented using existing USDA authorities to operate the National Plan Germplasm System and for the Agricultural Research Service's (ARS) research activities derived from, inter alia, 7 U.S.C. 1621–27, 2201, 2204, 3291, and 5841."

National Commitments, International Cooperation, and Technical Assistance (Articles 7-8)

Article 7 requires each party, as appropriate, to integrate the measures referred to in Articles 5 and 6 into their domestic agricultural and development policies and to cooperate with other Parties in the conservation and sustainable use of PGRFA. Under Article 8, States Parties agree to promote the provision of technical assistance to Parties, especially those that are developing countries, to facilitate treaty implementation.

The activities described in Articles 7 and 8 are consistent with current U.S. practice, including U.S. participation in the FAO, USDA provision of technical assistance to further the sustainability of global agriculture (provided pursuant to 7 U.S.C. 3291), and USAID program support for International Agricultural Research Centers and national agricultural research systems in developing countries (provided pursuant to the Foreign Assistance Act of 1961, as amended).

Farmers' Rights (Article 9)

Article 9 expresses recognition of the contribution of indigenous communities and farmers to the conservation and development of PGRFA. The article refers to "farmers' rights" relating to PGRFA, though it does not attempt to define or enumerate such rights.

Under Article 9, the responsibility for realizing "farmers' rights" with regard to PGRFA rests with national governments. In accordance with each party's needs and priorities, each party should, as appropriate and subject to national legislation, take measures to protect and promote Farmers' Rights. Such measures could include the protection of traditional knowledge relevant to PGRFA, the right to equitably participate in sharing of benefits from PGRFA utilization, as well as the right to participate in making decisions, at the national level, on matters related to conservation and sustainable use of PGRFA.

In response to a question for the record on whether Article 9 requires states parties to afford particular rights to farmers under their domestic law, the executive branch stated:

No, the treaty does not require states parties to afford any particular rights to farmers under domestic laws. Instead it specifically envisions that each party would define its own particular measures in this regard. The United States already recognizes the importance of consultation and recognition as contemplated by this article, including in a variety of national and state laws, regulations, and orders, including contract laws, unfair competition laws, intellectual property laws, and Executive Order 13175 (November 6, 2000) "Consultation and Coordination with Indian Tribal Governments." Further, USDA has long conveyed extensive nonmonetary benefits to farmers through land grant universities and extension services authorized under, *inter alia*, 7 U.S.C. §§301 *et. seq.*, 322 *et. seq.* and 341 *et. seq.* USDA also provides services specifically to indigenous communities through, inter alia, Title V of P.L. 103–382 (Oct. 20, 1994); Title XVI, §1677, P.L. 101–64 (1990 Farm Bill); 7 U.S.C. §3241 and 20 U.S.C. §1059d.

MULTILATERAL SYSTEM OF ACCESS AND BENEFIT-SHARING

## Establishing the MLS (Article 10)

Article 10 recognizes the sovereign rights of States over their PGRFA, including the right to determine access. It also establishes a multilateral system (MLS) of access and benefit-sharing with the twin purposes of facilitating access to PGRFA and sharing, in a fair and equitable manner, the benefits arising from use of PGRFA.

#### Coverage of the MLS (Article 11)

The MLS covers those PGRFA listed in Annex I of the treaty (currently 64 food crops and forages) that are under the management and control of the Parties and in the public domain. The list in Annex I covers many crops of importance to the United States, including wheat, corn, rice, barley, potatoes, citrus, apples, peas, oats and yams. Pursuant to Article 24, any amendments to Annex I must be adopted by a consensus decision of the treaty's governing body, and enter into force for a state only after that state has ratified them.

Under Article 11, Parties also agree to take appropriate measures to encourage natural and legal persons within their jurisdictions who hold PGRFA listed in Annex I to include such resources in the MLS. The United States currently does so, consistent with

existing law and policy, by encouraging private entities in the United States to deposit germplasm in the U.S. National Plant Germplasm System.

Facilitated Access to PGRFA within the MLS (Article 12)

Article 12 sets forth the treaty's core obligation: to provide facilitated access to PGRFA under the MLS for other Parties and legal and natural persons under the jurisdiction of any party. Under Article 12(3), access to PGRFA is to be provided in accordance with certain enumerated conditions, including that (1) access be accorded solely for research, breeding, and training for food and agriculture (and not for chemical, pharmaceutical and/or other non-food or feed industrial uses); (2) access be accorded expeditiously and free of charge or at minimal cost; (3) recipients may not claim intellectual property rights that limit access to PGRFA in the form received from the MLS; and, (4) access to PGRFA under development remains at the discretion of its developer during the period of development. Facilitated access is to be accorded through the Standard Material Transfer Agreement (SMTA) as adopted by the governing body of the treaty.

As with other aspects of the treaty, the executive branch will use existing authorities to implement treaty obligations for the provision of facilitated access to PGRFA. The Letter of Transmittal states:

USDA's Agricultural Research Service maintains the National Plant Germplasm System, a network of more than 20 federal genebanks that operate under authority derived from, *inter alia*, 7 U.S.C. §§ 2201, 2204, 3125a, 3291, 5841, and 5924. Under these authorities, the USDA Secretary is authorized to provide, free of charge, samples of germplasm from the federal genebanks to any requestor, so long as such provision is not inconsistent with other laws or regulations.

As noted above, Article 12.3(d) of the Treaty states that recipients shall not claim intellectual property rights that limit access to the plant genetic materials in the form received from the Multilateral System. The understanding, proposed by the Executive Branch and included in the Resolution of consent to ratification would according to the Executive branch:

[U]nderscore that an invention derived from material obtained from the Multilateral System could be patented or protected by plant variety protection. For example, if corn germplasm is taken from the Multilateral System and used to create a new corn hybrid that is distinct from the original material, intellectual property protection would be available for the new variety. Similarly, a modified gene sequence or modified extract from the corn or a method of use of material isolated from plant genetic materials from the Multilateral System could also be patentable. A number of other Parties, including Japan, the United Kingdom and Germany, have submitted similar declarations; no country has submitted a declaration to the contrary.

## Benefit-sharing in the MLS (Article 13)

Article 13 sets out the agreed terms for benefit sharing within the MLS, recognizing that facilitated access to PGRFA itself constitutes a major benefit. Other mechanisms contemplated by the treaty include the exchange of information, access to and transfer of technology, capacity building, and the sharing of benefits arising from commercialization. With respect to the exchange of information, the executive branch indicated, in response to a question for the record, that the treaty would not require the United States to make any information available beyond that already freely distributed by USDA and the National Plant Germplasm System. In relation to the transfer of technology, the Letter of Transmittal indicates that the treaty would require that Parties encourage access to technology, but there is no obligation to ensure that such access is actually provided. In response to a question for the record, the executive branch indicated that USDA's existing programs and practices are consistent with the treaty's provisions on access to and transfer or technology. Accordingly, the United States would not be required to take any additional steps to comply with the treaty in this regard.

With regard to the sharing of benefits arising from commercialization, the treaty establishes a system in which a recipient of PGRFA (such as a company) who commercializes a product that incorporates material accessed from the MLS must pay an equitable share of the benefits resulting from the commercialization. The payment is made into a Trust Fund (established pursuant to Article 19), which is administered by the treaty's governing body. If a company commercializes a product containing PGRFA, it can choose either to make the product freely available for further research and breeding, or it can pay a small royalty into the Trust Fund. The current royalty level is 0.77 percent of gross sales, which is consistent with existing practice with respect to current industry

royalty rates.

U.S. entities that seek to access PGRFA from the MLS must generally pay these royalties even though the United States is not a party to the treaty. This is the case because foreign seed banks already require acceptance of the SMTA terms, including the royalty provision, as a condition of access to their PGRFA.

#### Financial Provisions (Article 18)

The parties agree to implement a funding strategy for implementation of the treaty. The strategy aims to enhance the availability, transparency, efficiency, and effectiveness of the provision of financial resources for the treaty. Sources of funding include, inter alia, funds derived from those transfers associated with the MLS that require payments, voluntary contributions, and funds from relevant international mechanisms, funds, and bodies. There are no assessed contributions from parties to the treaty.

## INSTITUTIONAL PROVISIONS

## Governing Body and Secretary (Articles 19–20)

Article 19 establishes a governing body composed of all parties that functions to promote the full implementation of the treaty. All decisions are taken by consensus, unless the body agrees by consensus to another method of decisionmaking. Adoption of amendments to the text and annexes must be through consensus. The governing body's functions include adopting a funding strategy and budget and maintaining regular communication with other international organizations to enhance institutional cooperation on genetic resource issues. The secretary of the governing body assists the governing body in carrying out its functions and is appointed by the Director-General of the FAO, with the approval of the governing body.

#### COMPLIANCE (ARTICLE 21)

The governing body is obligated to consider and approve cooperative procedures to promote compliance with the treaty and address issues of non-compliance.

Settlement of Disputes (Article 22)

The treaty provides for a non-binding form of dispute settlement and contains a provision for third-party mediation when negotiations fail. A party is subject to negotiation and non-binding conciliation procedures regarding disputes about the interpretation or application of the treaty, unless at the time of ratification it declares in writing that it accepts one of the specified binding forms of dispute settlement. No such declaration has been added to the text of the Resolution of Advice and Consent to ratification of the treaty.

Amendments to the Treaty (Article 23)

Amendments to the treaty may be adopted only by consensus of all parties present at the relevant session of the governing body.

## IV. ENTRY INTO FORCE

The treaty entered into force on June 29, 2004. The treaty will enter into force for the United States on the ninetieth day following the deposit of the U.S. instrument of ratification.

#### V. IMPLEMENTING LEGISLATION

As noted above, the executive branch has indicated that the United States currently has all necessary authority to implement the treaty. Accordingly, no new legislation is necessary or is being sought in conjunction with the treaty.

## VI. COMMITTEE ACTION

The committee held a hearing to consider the treaty on May 19, 2016. The hearing was chaired by Senator Isakson. The committee considered the treaty on June 23, 2016, and ordered the treaty favorably reported by voice vote, with a quorum present and without objection, with the recommendation that the Senate give advice and consent to its ratification, as set forth in this report and the accompanying resolution of advice and consent to ratification.

The committee previously considered the treaty in the 111th Congress. A hearing chaired by Senator Kaufman considered the

<sup>1</sup> To view the published transcript of the May 19, 2016 hearing (S. Hrg. 114–324), see: https://www.govinfo.gov/browse/content/pkg/CHRG-114shrg20973/pdf/CHRG-114shrg20973.pdf

treaty on November 10, 2009,<sup>2</sup> and on December 14, 2010, the committee ordered the treaty favorably reported by voice vote, with a quorum present and without objection, with the recommendation that the Senate give advice and consent to its ratification.

#### VII. COMMITTEE RECOMMENDATIONS AND COMMENTS

The committee believes that the treaty is in the interest of the United States and urges that the Senate act promptly to give advice and consent to ratification. The United States has been a leader in the development and sharing of PGRFA, and joining the treaty will ensure that the United States continues in this leadership role. Through the treaty, the United States will guarantee access for U.S. agricultural interests to foreign countries' gene banks. Such access is critical to the research and development of new crop varieties that are resistant to pests and diseases, show improved yields, and are more capable of tolerating environmental stresses.

U.S. accession to the treaty is supported by the Departments of State and Agriculture, and USAID. The treaty also has widespread support among plant breeders, academics and seed users, including the American Seed Trade Association, the American Farm Bureau Federation, the American Society of Plant Biologists, the Crop Science Society, the Association of Public and Land-grant Universities' Board on Agriculture Assembly, the National Cotton Council, the National Farmers Union, the American Soybean Association, the National Association of Wheat Growers, the National Corn Growers Association, the Biotechnology Innovation Organization, US Rice Producers Association, and the National Sorghum Producers.

The committee considers that U.S. accession to the treaty will help protect U.S. interests with regard to the sharing of benefits from commercialization of PGRFA products. As noted above, a company that commercializes a product containing PGRFA may either make the product freely available or pay a small royalty into the treaty's trust fund. Contracts with royalty provisions are already in widespread use commercially for such plant genetic material. The current royalty level is 0.77 percent of gross sales, well within the rage of terms used by agricultural industry, and which U.S. industry considers to be reasonable and consistent with industry practice. The Administration has informed the committee that the Treaty does not obligate Parties to contribute specific amounts of financial resources for national activities in developing countries nor are there mandatory contributions from Parties to the Treaty. As noted above, the Treaty instead is funded through voluntary contributions.

At present, U.S. entities that seek to access PGRFA from the MLS must generally pay these royalties even though the United States is not a party to the treaty. This is the case because foreign seed banks already require acceptance of the SMTA terms as a condition of access to their PGRFA. Joining the treaty will give the United States influence over how the royalty funds are spent and a veto over efforts to increase royalty levels. With these tools, the

 $<sup>^2\</sup>mathrm{To}$  view the published transcript of the November 10, 2009 hearing (the hearing was appended to Executive Report 111–3, pp. 123–126 and p. 130), see: https://www.gpo.gov/fdsys/pkg/CRPT-111erpt3/pdf/CRPT-111erpt3.pdf

United States will be in the best position to protect the interests

of U.S. farmers, researchers, and industry.

Proponents of the PGRFA have favorably compared the treaty's SMTAs to the requirements of the Convention on Biological Diversity's Nagoya Protocol, which came into effect in October 2014. The Convention on Biological Diversity benefit sharing arrangements are typically negotiated on a bilateral contractual basis, in order to exchange germplasm. Though the United States is not a party to the Convention on Biological Diversity, many countries with plant materials that U.S. entities would like access to have already ratified the Nagoya Protocol. United States industry and public researchers have raised concerns about requirements under the Nagoya Protocol, such as the necessity of obtaining government-issued proof of prior informed consent to acquire materials, and have characterized such compliance issues as posing significant logistical problems, and likely to be both cumbersome and costly.

The ability to advance and protect U.S. interests with regard to commercialization and the SMTAs is a core basis for the wide-spread support among relevant industries. A group letter composed of industry organizations and plant breeders informed the chairman and ranking member, in a letter dated April 11, 2016, that "[r]atification, would give the U.S. a prominent voice in making the Treaty more user friendly for both private and public sector users of international germplasm. Without ratification, the United States would miss an opportunity to protect our national interests in these on-going discussions on refining the operations of the Treaty." The Biotechnology Industry Organization (now the Biotechnology Innovation Organization, BIO) conveyed similar views in a letter to the chairman and ranking member, dated September 8, 2015, which emphasized that "[o]nly through ratification does the United States have the ability to fully engage in the process and to promote the interests of our country within this global setting."

The committee notes that as a Party to the Treaty, the United States would be able to participate in decisions that affect U.S. interests and would be in a position to block consensus on any pro-

posals contrary to U.S. interests.

#### RESOLUTION OF ADVICE AND CONSENT

The committee has included in the resolution of advice and consent one understanding and one declaration.

### Understanding

The understanding, which will be included in the instrument of ratification, conveys the U.S. position that Article 12.3(d) of the treaty does not deny or diminish the availability or exercise of intellectual property rights under national laws, including U.S. laws.

## Declaration

The declaration states that the treaty is not self-executing. Prior to the 110th Congress, the committee generally included such statements in the committee's report, but in light of the Supreme Court decision in *Medellin* v. *Texas*, 128 S. Ct. 1346 (2008), the committee has determined that a clear statement in the Resolution

is warranted. A further discussion of the committee's views on this matter can be found in Section VIII of Executive Report 110–12.

## VIII. TEXT OF THE RESOLUTION OF ADVICE AND CONSENT TO RATIFICATION

Resolved (two-thirds of the Senators present concurring therein),

## SECTION 1. SENATE ADVICE AND CONSENT SUBJECT TO AN UNDERSTANDING AND A DECLARATION.

The Senate advises and consents to the ratification of the International Treaty on Plant Genetic Resources for Food and Agriculture, adopted by the Food and Agriculture Organization of the United Nations on November 3, 2001 (the "Treaty") (Treaty Doc. 110–19), subject to the understanding of section 2 and the declaration of section 3.

### SEC. 2. UNDERSTANDING.

The advice and consent of the Senate under section 1 is subject to the following understanding, which shall be included in the United States instrument of ratification:

The United States of America understands that Article 12.3d

The United States of America understands that Article 12.3d shall not be construed in a manner that diminishes the availability or exercise of intellectual property rights under national laws

#### SEC. 3. DECLARATION.

The advice and consent of the Senate under section 1 is subject to the following declaration: The Treaty is not self-executing.

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